



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2014-0586; FRL- 9917-22-Region-9]

Approval and Promulgation of State Implementation Plans; California; Regional Haze Progress Report

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a revision to the California Regional Haze (RH) State Implementation Plan (SIP) submitted by the California Air Resources Board (CARB) documenting that the State's existing plan is making adequate progress to achieve visibility goals by 2018. The California RH SIP revision addresses the Regional Haze Rule (RHR) requirements under the Clean Air Act (CAA) to submit a report describing progress in achieving reasonable progress goals (RPGs) to improve visibility in Federally designated Class I areas in California and in nearby states that may be affected by emissions from sources in California. EPA is proposing to approve California's determination that the existing RH SIP is adequate to meet the visibility goals, and requires no substantive revision at this time.

DATE: Comments must be received by the designated contact at the address listed below on or before **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R09-OAR-2014-0586, by one of the following methods:

- Federal Rulemaking portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
- E-mail: webb.thomas@epa.gov.
- Fax: 415-947-3579 (Attention: Thomas Webb).
- Mail, Hand Delivery, or Courier: Thomas Webb, EPA Region 9, Air Division (AIR-2), 75 Hawthorne Street, San Francisco, California 94105. Hand and courier deliveries are only accepted Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays. Special arrangements should be made for deliveries of boxed information.

Instructions: EPA's policy is to include all comments received in the public docket without change. We may make comments available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information for which disclosure is restricted by statute. Do not submit information that you consider to be CBI or that is otherwise protected through <http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA, without going through <http://www.regulations.gov>, we will include your e-mail address as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you

for clarification, EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption, and be free of any defects or viruses.

Docket: All documents for this proposed action are listed in the index for docket number EPA-R09-OAR-2014-0586 on <http://www.regulations.gov>. Although listed in the index, some information is not publicly available, such as CBI or other information that is restricted by statute. Certain other material, such as copyrighted material, is publicly available only in hard copy form. Publicly available docket materials are available electronically at <http://www.regulations.gov> or in hard copy during normal business hours at the Planning Office of the Air Division, AIR-2, EPA Region 9, 75 Hawthorne Street, San Francisco, CA 94105. To view hard copies of documents listed in the docket index, EPA requests that you contact the individual listed in the FOR FURTHER INFORMATION CONTACT section.

FOR FURTHER INFORMATION CONTACT: Thomas Webb, U.S. EPA, Region 9, Planning Office, Air Division, AIR-2, 75 Hawthorne Street, San Francisco, CA 94105. Thomas Webb may be reached at telephone number (415) 947-4139 and via electronic mail at webb.thomas@epa.gov.

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I. Overview of Proposed Action

EPA is proposing to approve CARB's determination that the existing California RH SIP is adequate to achieve the established RPGs for Class I areas by 2018, and therefore requires no substantive revision at this time. The State's determination and EPA's proposed approval are based on the California Regional Haze Plan 2014 Progress Report ("Progress Report" or "Report") submitted by CARB to EPA on June 16, 2014, that addresses 40 CFR 51.308(g) and (h) of the RHR. The Progress Report demonstrates that the emission control measures in the existing RH SIP are sufficient to enable California, as well as other states with Class I areas affected by emissions from sources in California, to meet all established RPGs for 2018. We are also proposing to find that CARB fulfilled the requirements in 51.308(i)(2), (3), and (4) to provide Federal Land Managers (FLMs) with an opportunity to consult on the RH SIP revision, describe how CARB addressed the FLMs' comments, and provide procedures for continuing the consultation.

II. Background on Regional Haze

Regional haze is visibility impairment produced by many sources and activities located across a broad geographic area that emit fine particles that impair visibility by scattering and absorbing light, thereby reducing the clarity, color, and visible distance that one can see. These fine particles also can cause serious health effects and mortality in humans and contribute to environmental impacts, such as acid deposition and eutrophication of water bodies.

The RHR uses the deciview as the principle metric for measuring visibility and for the RPGs that serve as interim visibility goals toward meeting the national visibility goal of reaching natural conditions by 2064. A deciview expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Deciviews are determined by using air quality measurement to estimate light extinction, and then transforming the value of light extinction using a logarithmic function. Deciview is a more useful measure for tracking progress in improving visibility than light extinction because each deciview change is an equal incremental change in visibility perceived by the human eye. Most people can detect a change in visibility at one deciview.

III. Background on Regional Haze Plans

In section 169A(a)(1) of the CAA Amendments of 1977, Congress created a program to protect visibility in designated national parks and wilderness areas, establishing as a national goal the “prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution.” In accordance with section 169A of the CAA and after consulting with the Department of Interior, EPA promulgated a list of 156 mandatory Class I Federal areas where visibility is identified as

an important value (44 FR 69122, November 30, 1979). In this notice, we refer to mandatory Class I Federal areas as “Class I areas.” California has 29 Class I areas, the most of any state.

With the CAA Amendments of 1990, Congress added section 169B to address regional haze issues. EPA promulgated a rule to address regional haze on July 1, 1999, known as the Regional Haze Rule (64 FR 35713). The RHR revised the existing visibility regulations in 40 CFR 51.308 to integrate provisions addressing regional haze impairment and to establish a comprehensive visibility protection program for Class I areas.

CARB submitted its initial RH SIP to EPA on March 17, 2009, in accordance with the requirements of 40 CFR 51.308 for the first regional haze planning period ending in 2018. EPA approved the California RH SIP for the first planning period on June 14, 2011 (76 FR 34608). The Progress Report from CARB is the first evaluation of whether the existing California RH SIP is sufficient to enable California, and other states affected by emissions from sources in California, to meet the established visibility goals for 2018.

IV. Requirements for Regional Haze Progress Reports

The RHR in 40 CFR 51.308(g) requires states to submit a report every five years in the form of a SIP revision to evaluate progress toward achieving the RPGs for each Class I area in the state and for those areas outside the state that may be affected by emissions from within the state. The first progress reports are due five years from the submittal date of each state’s initial RH SIP. These reports must contain an evaluation of seven elements, at a minimum, and include a determination of the adequacy of the state’s existing RH SIP. In summary,¹ the seven elements are: 1) a description of the status of implementation of all measures included in the current RH SIP for achieving the RPGs in Class I areas within and outside the State; 2) a summary of the

¹ Please refer to 40 CFR 51.308(g) for the exact Rule requirements.

emission reductions achieved in the State through implementation of these measures; 3) an assessment of visibility conditions and changes on the most impaired and least impaired days for each Class I area in the State in terms of 5-year averages of the annual values; 4) an analysis of changes in emissions over the past 5 years contributing to visibility impairment from all sources and activities within the State based on the most recently updated emissions inventory; 5) an assessment of any significant changes in anthropogenic emissions within or outside the State over the past 5 years that have limited or impeded progress in reducing pollutant emissions and improving visibility; 6) an assessment of whether the elements and strategies in the current RH SIP are sufficient to enable the State, or other states affected by its emissions, to achieve the established RPGs; and 7) a review of the State's visibility monitoring strategy and any necessary modifications.

Based on an evaluation of the factors listed above as well as any other relevant information, a state is required in 40 CFR 51.308(h) to determine the adequacy of its existing RH SIP. The state must take one of four possible actions based on the analysis in its progress report. In summary,² these actions are to 1) provide a negative declaration to EPA that no further substantive revisions to the State's existing RH SIP is needed to achieve the RPGs; 2) provide notification to EPA and to other states in its region that its RH SIP is or may be inadequate to ensure reasonable progress due to emissions from sources in other states, and collaborate with other states to develop additional strategies to address the deficiencies; 3) provide notification and available information to EPA that the State's RH SIP is or may be inadequate to ensure reasonable progress due to emissions from sources in another country; or 4) revise its RH SIP within one year to address the deficiencies if the State determines that its existing plan is or may

² Please refer to 40 CFR 51.308(h) for the exact Rule requirements.

be inadequate to ensure reasonable progress in one or more Class I areas due to emissions from sources within the State.

A state must document that it provided FLMs with an opportunity for consultation prior to holding a public hearing on a RH SIP or plan revision as required in 40 CFR 51.308(i)(2). In addition, a state must include a description of how it addressed any comments from the FLMs, and provide procedures for continuing consultation with the FLMs as required in 40 CFR 51.308(i)(3) and (4).

V. EPA's Evaluation of California's Progress Report

This section describes California's Progress Report and EPA's evaluation of the Report in relation to the seven elements listed in 40 CFR 51.308(g) and the determination of adequacy in 40 CFR 51.308(h). We also review the requirement in 40 CFR 51.308(i)(2) for state and FLM coordination on a plan revision. However, to facilitate a better understanding of the Report's contents, we first provide background information on the framework for measuring visibility progress, the causes of haze in California, and the sources of data used in the Report.

Framework for Measuring Progress: Visibility conditions at California's 29 Class I areas are calculated in deciviews using data collected from 17 Interagency Monitoring of Protected Visual Environments (IMPROVE) monitors. These deciview values are then compared to the State's RPGs (i.e., visibility goals) for 2018 in each Class I area. The RPGs are based on the annual average of the projected deciview level for the 20 percent best days and the 20 percent worst days measured at each Class I area. The RPGs in 2018 for the worst days, the key indicator of progress, are the result of atmospheric modeling based on projected emission reductions from control strategies in the California RH SIP as well as emission reductions expected to result from other Federal, state and local air quality programs among other factors. The RPGs must provide

for an improvement in visibility on the 20 percent worst days and ensure no degradation on the 20 percent best days, compared to average visibility conditions during the baseline period from 2000 to 2004.

Causes of Haze: The three primary drivers of haze on the worst days in California are nitrates mostly from mobile sources, sulfates mostly from offshore and international sources, and organic carbon (OC) mostly from natural sources. Accordingly, California's control strategies target reducing the precursors of these pollutants: nitrogen oxide (NO_x) for nitrates, sulfur oxide (SO_x) for sulfates, and reactive organic gases (ROG)³ for organic carbon, along with fine particulate matter (PM_{2.5}) that is directly emitted. For more information regarding the causes of haze in California and other background information, please refer to the California RH SIP and EPA's evaluation of that SIP, both of which are available in the docket for this rulemaking.⁴

Data Sources for the Progress Report: CARB's analysis is primarily based on IMPROVE monitoring data for the five-year period from 2007 to 2011 (i.e., current conditions) compared to monitoring data from 2000 to 2004 (i.e., baseline conditions). For each of these time periods, the RHR requires the use of a five-year average of annual average deciview values to represent the baseline and current conditions. CARB also relied on the "Western Regional Air Partnership (WRAP) Regional Summary Report," dated June 2013, that focuses on the five years (2005 to 2009) following the baseline period. While the most recent IMPROVE data for 2012 was not available in time for the Progress Report's analysis, a summary of the 2012 monitoring data is appended to the Report, and is referenced to support the analysis of current conditions.

A. Status of Control Strategies

³ CARB defines ROG emissions as reactive organic gases that are a precursor to organic carbon aerosols. ROG means any compound of carbon, which is how EPA defines volatile organic compounds (VOC). However, the lists of compounds of carbon that are excluded from the respective lists of ROGs and VOCs differ to some extent.

⁴ California RH SIP Section 4.7: Regional Analysis of Source Categories, Proposed rule at 76 FR 13944 (March 15, 2011), and Final rule at 76 FR 34608 (June 14, 2011).

1. CARB's Analysis

The California RH SIP relies on the continued implementation of adopted Federal, state and local control measures, which were developed primarily to meet the National Ambient Air Quality Standards (NAAQS), to address the anthropogenic sources of haze in California. In its Progress Report, CARB confirms that mobile sources are the primary contributor of NO_x, while also contributing SO_x, OC, and PM_{2.5} to haze at Class I areas. Although many aspects of mobile sources are regulated by Federal laws, the Progress Report notes that California has some of the most aggressive and innovative State and local regulations for mobile sources in the country. The Progress Report lists strategies adopted and implemented by the State that target emission reductions from light-duty passenger vehicles, heavy-duty diesel trucks, and off-road equipment, which are some of the largest sources of NO_x emissions. Actual measures include fuel and engine standards, pollution control technology, goods movement and transportation rules, and consumer product requirements. In addition, local air districts implement stationary source and other control programs including New Source Review and Prevention of Significant Deterioration permits that also reduce or prevent emissions that might contribute to haze.

The Progress Report includes a list of two dozen new control strategies that were not in the emission inventory used to project the deciview level for the RPGs in 2018. Due to nonattainment of NAAQS, CARB and local districts are regularly adopting or revising rules and creating new incentives to reduce emissions. These new control measures should further reduce emissions beyond those projected from the control strategies in the California RH SIP.

The Progress Report also includes an update on the State's single stationary source, the Valero Refinery in Benicia, California, that was required to install and operate Best Available Retrofit Technology (BART) controls. The new control equipment includes low-NO_x burners and selective catalytic reduction to reduce NO_x, and scrubbers to remove SO₂ and PM₁₀ (large

particulate matter). These controls, installed and in operation at the Valero Refinery since February 2011, two years before the deadline for compliance, are already reducing emissions. The deciview and light extinction data from 2011 (20.2 dv) and 2012 (20.1) for Point Reyes National Seashore, the most affected Class I area by emissions from this source, are already showing a reduction in nitrates and sulfates compared to 2010 (22 dv).

2. EPA's Evaluation

EPA proposes to find that CARB adequately addresses the requirement in 40 CFR 51.308(g)(1) to describe the status of all measures included in the California RH SIP. CARB generally describes the types of measures in its RH SIP, and includes new control strategies that should contribute to further improvement in visibility. The report identifies NO_x emissions from mobile sources as the primary source of anthropogenic emissions causing or contributing to haze, and focuses on related control measures. The report also includes the status of BART controls at the Valero Refinery, the only identified source in California subject to BART. In response to a comment from FLMs requesting additional information regarding Federal and state regulations that were accounted for in California's RPGs, CARB noted that its RH SIP submitted in 2009 included a discussion of the regulations used to establish the RPGs for 2018.⁵ The RH SIP is included in the docket for this action. A listing of state and local California air district rules within the federally enforceable SIP, is available at:

<http://www.epa.gov/region9/air/sips/index.html>.

B. Emission Reductions and Progress

1. CARB's Analysis

⁵ Progress Report Appendix E: Comments of Federal Land Management Agencies with CARB Responses.

CARB provides a recently updated California Statewide Emission Inventory from 2000 to 2020 at five-year intervals that demonstrates steadily decreasing emissions of regional haze precursors (i.e., NO_x, ROG, SO_x, and PM_{2.5}) from about 75 categories of sources.⁶ NO_x emissions are expected to decrease from about 1.4 million tons per year (tpy) in 2000 to 567,000 tpy in 2020. ROG emissions are expected to decrease from about 1 million tpy in 2000 to 570,000 tpy in 2020. SO_x emissions are expected decrease from about 106,000 tpy in 2000 to 30,000 tpy in 2020. PM_{2.5} emissions are expected to decrease from about 241,000 tpy in 2000 to 151,000 tpy in 2020.

Statewide emissions also are summarized by pollutant for each of the three major categories of sources: stationary, area, and mobile.⁷ Of particular interest are NO_x emissions from mobile sources, which are expected to decrease from about 1.1 million tpy in 2000 to 995,000 tpy in 2005; 706,000 tpy in 2010; 557,000 tpy in 2015; and 434,000 tpy in 2020. The statewide emissions inventory and summary are accompanied by a graph of statewide inventory trends that shows decreasing emissions for all four visibility-impairing pollutants from 2000 to 2020. Mobile source emissions of NO_x, ROG, SO_x, and PM_{2.5}, listed above in tpy, are projected to decline by about 60, 65, 85, and 50 percent, respectively, from 2000 to 2020.⁸ Stationary and area sources for these four pollutants are also projected to decline over this 20-year period. Overall statewide emissions of NO_x, ROG, SO_x, and PM_{2.5} for stationary, area, and mobile sources are expected to decline by almost 40 percent from 2000 to 2020.

2. EPA's Evaluation

EPA proposes to find that CARB adequately addresses the requirements in 40 CFR 51.308(g)(2) to provide a summary of the emission reductions achieved through implementation

⁶ *Id.* Appendix B: Emission Inventory 2013 Almanac.

⁷ *Id.* California Statewide Inventory Summary, Table 2, page 9.

⁸ *Id.* California Statewide Inventory Trends, Figure 3, page 10.

of the control measures relied upon to achieve the RPGs. The trend analysis for the largest category of emissions, NO_x from mobile sources, indicates that these emissions are expected to decline from 1,131,500 tons per year in 2000 to 433,620 tons per year by 2020, a reduction of almost 62 percent. As reported by CARB, statewide emissions of ROG, SO_x, and PM_{2.5} are also declining over this 20-year time period.

We also propose to find that CARB adequately addresses the requirement in 40 CFR 51.308(g)(4) to analyze the change in emissions over the past five years of pollutants contributing to visibility impairment from all sources and activities within the state, using the most recently updated emissions inventory. The California Statewide Emission Inventory is recently updated and includes inventories for 2005 and 2010 that represent the past five years.

C. Visibility Progress

1. CARB's Analysis

CARB addresses progress on the 20 percent best days and 20 percent worst days by comparing current conditions (five-year average from 2007 to 2011) to baseline conditions (five-year average from 2000 to 2004), and current conditions on worst days to the RPGs in 2018. A summary of progress on best and worst days is shown in Tables 1 and 2 that are adapted from the Progress Report.⁹ As shown in the tables, CARB divides the 17 monitors and 29 Class I areas into four regional zones for its analysis: Northern California, Sierra California, Coastal California, and Southern California.

TABLE 1—SUMMARY OF PROGRESS ON BEST DAYS
(IN DECIVIEWS)

IMPROVE Monitor	Class I Areas	Baseline Best Days (2000-04)	Current Best Days (2007-11)	Visibility Change
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⁹ *Id.* Statewide 2018 Reasonable Progress Goal Summary, Table 3, page 12, and Revised Table 3.

Northern California				
TRIN	Marble Mountain WA	3.4	3.0	0.4
	Yolla Bolly-Middle Eel WA			
LABE	Lava Beds NM	3.2	2.9	0.3
	South Warner WA			
LAVO	Lassen Volcanic NP	2.7	2.3	0.4
	Caribou WA			
	Thousand Lakes WA			
Sierra California				
BLIS	Desolation WA	2.5	2.1	0.4
	Mokelumne WA			
HOOV	Hoover WA	1.4	1.3	0.1
YOSE	Yosemite NP	3.4	2.5	0.9
	Emigrant WA			
KAIS	Ansel Adams WA	2.3	1.5	0.8
	Kaiser WA			
	John Muir WA			
SEQU	Sequoia NP	8.8	7.6	1.2
	Kings Canyon NP			
DOME	Dome Lands WA	5.1	4.9	0.2
Coastal California				
REDW	Redwood NP	6.1	5.8	0.3
PORE	Point Reyes NS	10.5	8.6	1.9
PINN	Pinnacles WA	8.9	7.8	1.1
	Ventana WA			
RAFA	San Rafael WA	6.4	5.2	1.2
Southern California				
SAGA	San Gabriel WA	4.8	4.5	0.3
	Cucamonga WA			
SAGO	San Gorgonio WA	5.4	4.0	1.4
	San Jacinto WA			
AGTI	Agua Tibia WA	9.6	7.1	2.5
JOSH	Joshua Tree NP	6.1	4.8	1.3

WA = Wilderness Area NM = National Monument NP = National Park NS = National Seashore

TABLE 2—SUMMARY OF PROGRESS ON WORST DAYS
(IN DECIVIEWS)

IMPROVE Monitor	Class I Areas	Baseline Worst Days (2000-04)	Current Worst Days (2007-11)	Visibility Change	RPG (2018)	Current Progress to RPG
<i>Northern California</i>						
TRIN	Marble Mountain WA	17.4	15.2	2.1	16.4	210%
	Y.B.-Middle Eel WA					
LABE	Lava Beds NM	15.1	13.0	2.1	14.4	300%

	South Warner WA					
LAVO	Lassen Volcanic NP	14.1	15.6	-1.5	13.3	-188%
	Caribou WA					
	Thousand Lakes WA					
Sierra California						
BLIS	Desolation WA	12.6	13.0	-0.4	12.3	-133%
	Mokelumne WA					
HOOV	Hoover WA	12.9	11.5	1.4	12.5	350%
YOSE	Yosemite NP	17.6	16.0	1.6	16.7	178%
	Emigrant WA					
KAIS	Ansel Adams WA	15.5	14.9	0.6	14.9	100%
	Kaiser WA					
	John Muir WA					
SEQU	Sequoia NP	25.4	22.3	3.1	22.7	115%
	Kings Canyon NP					
DOME	Dome Lands WA	19.4	18.3	1.1	18.1	85%
Coastal California						
REDW	Redwood NP	18.5	18.5	0	17.8	0%
PORE	Point Reyes NS	22.8	21.6	1.2	21.3	80%
PINN	Pinnacles WA	18.5	17.5	1.0	16.7	56%
	Ventana WA					
RAFA	San Rafael WA	18.8	18.0	0.8	17.3	53%
Southern California						
SAGA	San Gabriel WA	19.9	18.0*	1.9	17.4	76%*
	Cucamonga WA					
SAGO	San Gorgonio WA	22.2	18.7	3.5	19.9	152%
	San Jacinto WA					
AGTI	Agua Tibia WA	23.5	19.8	3.7	21.6	195%
JOSH	Joshua Tree NP	19.6	16.1	3.5	17.9	206%

WA = Wilderness Area NM = National Monument NP = National Park NS = National Seashore

* This data is from 2005 to 2008 due to fire damage to the monitor in 2009.

Current visibility conditions have improved on the 20 percent best days at all California's Class I areas as indicated in the last column of Table 1 that shows positive visibility change compared to the best days baseline for all 17 monitors.¹⁰ On the 20 percent worst days, the current conditions already meet the RPGs for 2018 at nine of the 17 monitors as shown in Table 2. At five monitors, current conditions on worst days range from 53 to 85 percent of the improvement in visibility needed to meet the respective RPGs. At the remaining three monitors,

¹⁰ See Revised Table 3, Technical Correction for Current Best Days (2007-2011), August 6, 2014.

current conditions on worst days indicate that six Class I areas are not making progress in achieving the RPGs.

The Progress Report explains that the limited progress in improving visibility at six Class I areas, all located in northern California, is due to smoke from wildfires as documented in Appendix D of the Progress Report.¹¹ The six Class I areas and the associated monitors are Lassen Volcanic National Park, Caribou Wilderness Area, and Thousand Lakes Wilderness Area (LAVO); Desolation Wilderness Area and Mokelumne Wilderness Area (BLIS); and Redwood National Park (REDW). CARB explains that wildfire smoke has caused unusually high deciviews on the worst days at the LAVO monitor in 2008 and 2009, at the BLIS monitor in 2007 and 2008, and at the REDW monitor in 2008. CARB provides technical analyses of how wildfire smoke can elevate the deciview value on a sufficient number of the 20 percent worst days to increase the annual average deciview as well as skew the five-year average deciview at a given monitor. CARB also notes that offshore emissions from ocean vessels may contribute to sulfate formation that impairs visibility at some remote monitors near the coast where there are no other major sources of sulfates.¹² This may be the case for Pinnacles Wilderness Area and Ventana Wilderness Area (PINN), and Redwood National Park (REDW), where visibility improvement during the current five-year period is slower than elsewhere, although these three Class I areas are affected by wildfire smoke in some years as well.

CARB also includes a Statewide 2018 Reasonable Progress Goal Summary using 2012 Data¹³ that represents the five-year average for current conditions from 2008 to 2012. This updated table shows that on the worst days only three Class I areas represented by one monitor (LAVO) have worse visibility during current conditions (15.6 dv) compared to the baseline (14.1

¹¹ *Id.* Appendix D: Technical Analyses of Factors Impeding Progress.

¹² *Id.* Page 11.

¹³ *Id.* Appendix C: Deciview Record (2000-2012), Table C-3.

dv). Of the remaining 16 monitors, 14 already exceed and two (REDW and PINN) are expected to meet the RPGs in 2018 for the worst days based on trends reflected by the updated current conditions. On the best days, the average current conditions from 2008 to 2012 meet or exceed the RPGs at all 17 monitors.

2. EPA's Evaluation

EPA proposes to find that CARB adequately addresses the requirement in 40 CFR 51.308(g)(3) to assess the visibility conditions and changes in each of the State's Class I areas for the least and most impaired days in terms of the five-year averages of the annual values. CARB describes progress at each of the Class I areas on the best and worst days using data from the IMPROVE monitors to analyze changes in visibility conditions for current conditions (2007 to 2011), current conditions compared to baseline conditions, and over the past five years, which is essentially equivalent to the baseline comparison.

D. Assessment of Changes Impeding Visibility Progress

1. CARB's Analysis

The Progress Report includes an assessment of changes in natural and anthropogenic emissions that impede visibility progress based on a review of emission inventories, monitoring data, and other sources of information.¹⁴ CARB identifies three factors, largely beyond the State's control, that interfere with progress toward improved visibility on worst days at some of its Class I areas. These factors are wildfire smoke from natural sources, offshore shipping emissions from anthropogenic sources largely outside California's jurisdiction, and Asian dust from natural and anthropogenic sources outside of California's jurisdiction. Each of these types of emissions can cause a spike in pollutants at a sampling monitor that could be included in the

¹⁴ *Id.* Section 4, pages 13-17.

20 percent worst days. Wildfire smoke results in elevated levels of organic carbon. Offshore shipping results in elevated levels of sulfates at monitors near the coast during the summer. Asian dust combined with industrial pollution in the form of coarse mass and fine soils are transported in the jet stream over the Pacific Ocean, especially during the spring.

CARB provides documentation and analysis supporting the fact that wildfires are occurring more frequently in California over the past decade.¹⁵ Wildfire smoke can cause increases in organic carbon concentrations at monitors for several consecutive days or weeks. In some cases, the effect of wildfires is high enough to increase the deciview value of the annual as well as five-year averages on the 20 percent worst days. The Progress Report includes the example of a large number of wildfires in northern California known as the “2008 Lightning Strike Complex” that occurred in June through August 2008. These fires had an overwhelming impact on visibility progress at many monitors throughout California and the West.¹⁶ CARB includes in the Report a satellite photo of smoke plumes on July 9, 2008, that indicates the location of the three monitors (REDW, BLIS, and LAVO) where visibility progress was lagging during the current conditions time period (2007 to 2011).¹⁷ Moreover, with 80 percent of the State considered wildland¹⁸ and smoke drifting long distances, all of California’s Class I areas are susceptible to wildfires.

2. EPA’s Evaluation

EPA proposes to find that CARB adequately addresses the requirement in 40 CFR 51.308(g)(5) to assess any significant changes in anthropogenic emissions within or outside the state over the past five years that have limited or impeded progress in reducing emissions and

¹⁵ *Id.* Wildfire Acreage Burned in California, 1950-2010, Figure 4, page 14.

¹⁶ *Id.*, The 2008 “Lightning Strike Complex,” Figure 5, page 15.

¹⁷ *Id.*, NASA Satellite Photo: July 9, 2008, Figure 6, page 16.

¹⁸ *Id.*, Wildfire Frequency and Intensity, Figure 7, page 17.

improving visibility. While CARB's analysis primarily focuses on wildfires, it also discusses the effects of emissions from offshore shipping and Asian dust.

E. Assessment of Current Strategy

1. CARB's Analysis

The Progress Report asserts that California's current control strategy is on track to meet the RPGs for 2018 at all 29 Class I areas throughout the State. CARB cites the IMPROVE data for 2011 in which each of the Class I areas is already below the 2018 visibility goal. Moreover, the State continues to strengthen existing control measures, adopt new control measures, and develop plans with even newer measures to meet upcoming NAAQS as well as other new Federal and State air quality requirements.

The Progress Report indicates that the current strategy also is sufficient to lessen the impact of California's emissions on neighboring states. In the California RH SIP, CARB determined that the State's emissions contributed about three percent or less of nitrate on the worst days at Jarbidge Wilderness Area in Nevada; Kalmiopsis Wilderness Area and Crater Lake National Park in Oregon; and Sycamore Canyon Wilderness Area and Grand Canyon National Park in Arizona. With California NO_x emissions projected to decrease by about 60 percent from 2000 to 2020, these small contributions will be further reduced.

2. EPA's Evaluation

EPA proposes to find that CARB adequately addresses the requirement in 40 CFR 51.308(g)(6) to assess whether the current elements and strategies in the RH SIP are sufficient to enable California, or other states affected by California's emissions, to meet all established RPGs. As described above, monitoring data indicates current visibility conditions already meet or exceed the RPGs for the 20 percent best days at all of the State's Class I areas. In addition, 26

of the State's 29 Class I areas have already achieved the 2018 RPGs for the worst days or are on track to meet those RPGs by 2018. The lack of progress at the three remaining areas on the worst 20 percent days is largely due to wildfires. Significant emission reductions within California are also expected to benefit Class I areas outside the State that are affected by California's emissions. CARB provides sufficient evidence to demonstrate that its current strategy is adequate to enable all affected Class I areas to meet the RPGs for 2018.

F. Review of Visibility Monitoring Strategy

1. CARB's Analysis

California will continue to rely on the IMPROVE network to collect and analyze the visibility data, and has no need to make any changes. CARB reports that the Station Fire in August 2009 destroyed the SAGA monitor that represents San Gabriel Wilderness Area and Cucamonga Wilderness Area. For this reason, the current conditions on the worst days for the SAGA monitor are based on 2005 to 2008, instead of 2007 to 2011. However, the monitoring site was reestablished in October 2011.

2. EPA's Evaluation

EPA proposes to find that CARB adequately addresses the requirement in 40 CFR 51.308(g)(7) to review its visibility monitoring strategy and make any modifications as necessary. We agree that there is no need to modify California's monitoring network for measuring visibility at this time.

G. Determination of Adequacy

1. CARB's Determination

CARB has determined that no substantive revision of the RH SIP is warranted at this time in order to achieve the RPGs for visibility improvement by 2018. Visibility trends for the worst days show improvement at every monitor except for the three monitors (LAVO, BLIS, and REDW) influenced by years with wildfires. Further, current visibility conditions on best days (2007 to 2011) at all monitors are better than the baseline period. Based on reductions in anthropogenic sources of emissions in California and the concurrent improvement in visibility at all of California's Class I area monitors, CARB determines that the current RH SIP strategies are sufficient to enable California and its neighboring states to meet their RPGs for 2018.

2. EPA's Evaluation

EPA proposes to find that CARB adequately addresses the requirements in 40 CFR 51.308(h) by determining that the existing California RH SIP requires no substantive revisions at this time to achieve the established RPGs at Class I areas affected by the State's sources. EPA concurs with the State's determination based on the analysis and documentation presented in the Progress Report. The Report provides evidence of declining emissions from anthropogenic sources within the State's control and improving visibility on worst days at all the monitors except when influenced by wildfires. Visibility on best days is also improving at all monitors, which are already meeting the RPGs for the best days.

H. Consultation with Federal Land Managers

1. CARB's Consultation

CARB conducted timely outreach in January 2014 to the FLMs including the U.S. National Park Service (NPS) and the U.S. Forest Service (USFS), which manage the national parks and wildlife areas in California. The NPS responded in a letter dated March 27, 2014, that agreed with CARB's conclusion that emission reductions are sufficient to meet the RPGs for

2018, and offered suggestions to strengthen the Report. The USFS responded in a letter dated April 8, 2014, that CARB has demonstrated it is on a technically sound path for improving visibility in Class I areas. CARB's responses to the comments from NPS and USFS are included in Appendix E of the Report.

CARB has submitted to EPA a Public Notice and Hearing Transcript along with a certified copy of Air Resources Board Resolution 14-15 dated May 22, 2014, the date of the public hearing at which the Board approved the Progress Report. Resolution 14-15 certifies that CARB provided a copy of the draft Progress Report to the FLMs on January 28, 2014, and on March 11, 2014, held a conference call to discuss the draft Report. In the response to comments, CARB commits to continuing policy discussions through the regular Air and Land Mangers meetings held between the State and FLMs.

2. EPA's Evaluation

EPA proposes to find that CARB has addressed the requirements in 40 CFR 51.308(i)(2), (3), and (4) to provide FLMs with an opportunity for consultation in person and at least 60 days prior to a public hearing on the SIP revision; include a description in the SIP revision of how it addressed any comments from the FLMs; and provide procedures for continuing consultation between the State and FLMs.

VI. EPA's Proposed Action

EPA is proposing to approve the California Regional Haze Plan 2014 Progress Report submitted to EPA on June 16, 2014, as meeting the applicable RHR requirements as set forth in 40 CFR 51.308(g), (h), and (i).

VII. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations.¹⁹ Thus, in reviewing SIP submissions, EPA's role is to approve state decisions, provided that they meet the criteria of the CAA. Accordingly, this proposed action is to approve state law as meeting Federal requirements, and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

¹⁹ 42 U.S.C. 7410(k); 40 CFR 52.02(a).

- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state. EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Organic carbon, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Visibility, Volatile organic compounds.

AUTHORITY: 42 U.S.C. 7401 *et seq.*

Dated: September 17, 2014.

Jared Blumenfeld,
Regional Administrator,
Region IX.

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